WHAT IS CLAIMED IS:

1. A system for tracing information for a plurality of instructions having an instruction order, comprising:

a trace data bus configured to transfer trace data in a trace data transfer order; and

a trace data order determination element configured to generate a trace data order signal, said trace data order signal specifying a trace data transfer order that is different from said instruction order.

2. The system of claim 1, wherein said trace data order signal is transferred on said trace data bus.

3. The system of claim 1, wherein said trace data order signal identifies a number of instructions that have trace data outstanding.

4. The system of claim 1, wherein said trace data is load data.

5. The system of claim 4, wherein a load address for said load data is transferred on said trace data bus prior to receipt of said load data from memory.

6. The system of claim 4, wherein said load data is transferred on said trace data bus with a load address if said load data is immediately available.

7. A computer program product for use in a system for tracing information for a plurality of instructions having an instruction order, comprising:

computer-readable program code for causing a computer to describe a trace data bus configured to transfer trace data in a trace data transfer order;

computer-readable program code for causing a computer to describe a trace data order determination element configured to generate a trace data order signal, said trace data order signal specifying a trace data transfer order that is different from said instruction order; and

a computer-usable medium configured to store the computer-readable program codes.

8. A method for enabling a computer to generate a system for transferring trace information for a plurality of instructions having an instruction order, comprising:

transmitting computer-readable program code to a computer, said computer-readable program code including:

computer-readable program code for causing a computer to describe a trace data bus configured to transfer trace data in a trace data transfer order; and

computer-readable program code for causing a computer to describe a trace data order determination element configured to generate a trace data order signal, said trace data order signal specifying a trace data transfer order that is different from said instruction order.

9. The method of claim 8, wherein computer-readable program code is transmitted to said computer over the Internet.

10. A computer data signal embodied in a transmission medium, comprising:

computer-readable program code for causing a computer to describe a trace data bus configured to transfer trace data in a trace data transfer order, said trace data being associated with a plurality of instructions having an instruction order; and

computer-readable program code for causing a computer to describe a trace data order determination element configured to generate a trace data order signal, said trace data order signal specifying a trace data transfer order that is different from said instruction order.

11. A method for transferring trace data, comprising:

transferring trace data for a plurality of instructions in an order different from a program sequence of said plurality of instructions, wherein a transfer of trace data for a particular instruction is specified relative to at least one outstanding instruction.

12. The method of claim 11, wherein said transfer of trace data for said particular instruction is specified relative to one outstanding instruction.

13. The method of claim 12, wherein said transfer of trace data for said particular instruction is accompanied by a signal that indicates that trace data for said one outstanding instruction is still outstanding.

14. The method of claim 11, wherein said transfer of trace data for said particular instruction is specified relative to a plurality of outstanding instructions.

15. The method of claim 14, wherein said transfer of trace data for said particular instruction is accompanied by a signal that indicates that trace data for said plurality of outstanding instructions is still outstanding.

16. The method of claim 15, wherein said signal indicates a number of instructions that have trace data outstanding.

17. The method of claim 11, wherein said trace data is load data.

18. The method of claim 17, wherein a load address for said load data is transferred on said trace data bus prior to receipt of said load data from memory.

19. The method of claim 17, wherein said load data is transferred on said trace data bus with a load address if said load data is immediately available.

20. A method for transferring trace data, comprising:

tracing a plurality of instructions having an instruction order;

transferring trace data for instructions in said plurality of instructions when said trace data becomes available, wherein said transfer order is different from said instruction order; and

transmitting a signal along with said transferred trace data that identifies a number of instructions that have trace data outstanding.

21. The method of claim 20, wherein said trace data is load data, and said transmitted signal identifies a number of instructions that have load data outstanding.

22. The method of claim 21, wherein a load address for said load data is transferred on said trace data bus prior to receipt of said load data from memory.

23. The method of claim 21, wherein said load data is transferred on said trace data bus with a load address if said load data is immediately available.